

the Examiner has not provided a copy of the Satoh reference that the Examiner relies on, at least in part, to refute Applicants' contention that the prior art does not teach or suggest the use of a smoothing capacitor in the manner recited in the claims. Although the Examiner acknowledges the Satoh reference as being newly introduced into the prosecution of this application, the Examiner did not provide a PTO-Form 892 that recites the patent number for the Satoh reference. Therefore, since the Examiner has not provided even a patent number for the Satoh reference, Applicants have been unable to address the Examiner's arguments with respect to this reference.

Claims 2, 11-14, 23, 24, 27, and 28 stand rejected under 35 U.S.C. § 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In view of the amendments made to these claims, Applicants submit that this rejection has been obviated. Applicants note that new claims 31-36 have been added to recite the subject matter that was deleted in this Amendment from the claims subject to this rejection.

Claims 29-30 stand objected to for a certain informality. In view of the amendment made to claim 29, Applicants submits that this objection has been obviated.

Claim 29 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,825,139 to Hamelin et al. ("Hamelin"). The Examiner believes that Figure 1 shows such an arrangement, but Applicants respectfully disagree. According to the Examiner, the last paragraph of column 8 in Hamelin establishes that the transistors in the circuit of Figure 1 provides a step-up function. Applicants submit that this is inaccurate. Nowhere in this portion of Hamelin is there a discussion of a step-up function being provided by transistors T1, T2, and T3. Instead, Hamelin describes these transistors as providing a "chopping function" on the voltage at terminals A, B, and C. Col. 8, ll. 44-46. Moreover, later on in column 8, the voltage is described as being "clipped". Col. 8, l. 55. Therefore, because the express language of Hamelin provides no support for a step-up converter function, but instead only supports the function of voltage "chopping" or "clipping", Applicants submit that Hamelin does not anticipate claim 29. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 1-6, 8-10, 13-18, 20-22, and 30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,825,139 to Hamelin et al. ("Hamelin"). In the previous Amendment, Applicants amended claims 1 and 13 to recite a capacitor for smoothing a current detected at a voltage detection point and the step of smoothing a current

detected at a voltage detection point using a capacitor. In repeating this rejection, the Examiner does not assert that Hamelin teaches such a capacitor or step. Instead, the Examiner brings to Applicants' attention U.S. Patent No. 5,793,625 to Balogh ("Balogh") as evidence of the smoothing capacitor and associated step recited in the claims. Applicants submit that Balogh provides no such proof of the smoothing capacitor and associated step recited in the claims. In particular, the Examiner asserts that capacitor C corresponds to the smoothing capacitor recited in the claims. Applicants do not agree that capacitor C in Balogh corresponds to such a recited capacitor. According to Balogh, capacitor C supports the load during the time when the rectified voltage decreases as a consequence of a phase current changing from zero to a large value. Col. 4, ll. 20-25. Thus, during these times when the rectified voltage is diminished, the voltage provided by capacitor C supports the connected load. This function of load support is not the same function of output smoothing recited in the claims. Therefore, because the capacitor C in Balogh is not described in this reference as providing a smoothing function as recited in the claims, Applicants submit that the Examiner's reliance on Balogh to overcome the deficiency in Hamelin is misplaced.

Moreover, assuming for the moment that Balogh does indeed teach such a smoothing function, Applicants nevertheless would respectfully point out that this still does not establish a prima facie case of obviousness. Even if the capacitor C in Balogh is a smoothing capacitor as recited in the claims, all that the Examiner will have argued is that all of the claim elements except for one is in Hamelin, while the other element is in Balogh. As the Examiner can appreciate, this type of argument is insufficient for demonstrating obviousness because it does not explain why one of ordinary skill in the art would have been motivated to apply the teachings of Balogh to that of Hamelin. On the other hand, if the reliance by the Examiner on Balogh was merely to demonstrate that a smoothing capacitor would have been inherent to Hamelin, here again the argumentation of the Examiner falls short of this threshold of proof as well, for the Examiner does not explain why Balogh demonstrates that the particular claim limitation would necessarily result from the teachings contained in Hamelin, and why one skilled in the art would recognize such an inevitable, yet unexpressed, feature of the reference. Electro Medical Systems S.A. v. Cooper Life Sciences Inc., 32 USPQ2d 1017, 1020 (Fed. Cir. 1994) ("EMS was required to prove that an unpressurized flow is necessarily present in the Ruemelin disclosure, and that it would be so recognized by persons of ordinary skill."). Therefore, whether the purpose of the Examiner in relying on Balogh was to provide a secondary reference to rely upon in the obviousness

rejection, or to provide evidence of the inherency of smoothing capacitors in Hamelin, Applicants submit that the Examiner has not carried his burden in either case. Accordingly, in view of this discussion, Applicants submit that claims 1 and 13 are patentable over the references relied on by the Examiner.

As for claims 2-6, 8, 9, and 10, Applicants submit that these claims are patentable for at least the same reasons given in support of the patentability of claim 1.

As for claims 13-18, and 20-22, Applicants submit that these claims are patentable for at least the same reasons given in support of the patentability of claim 13.

As for claim 30, Applicants submit that this claim is patentable for the reasons given in support of the patentability of claim 29, and also for the reasons given in support of the patentability of claims 1 and 13.

In addition to claims 31-36, which were added to recite the subject matter deleted from the claims rejected under 35 U.S.C. § 112, ¶2, Applicants have also added claim 37. Support for this claim is found at least at Figure 4 of the present application. Applicants submit that none of the references relied on by the Examiner teaches or suggests the invention of claims 31-37.

Applicants also note that none of claims 12, 23, 24, and 27-29 were rejected in view of prior art. Applicants would appreciate receiving in the next communication from the Patent Office an indication that these claims are allowable.

Applicants assert that the present invention is new, non-obvious, and useful. Consideration and allowance of the claims are requested.

Respectfully submitted,

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